

Pupa.—Pale yellow. Head distinct; antennal capsules prominent, with two distinct joints and a thimble-like projection at the apex; tip of proboscis projecting slightly. Thorax broad and humped prominently; wing pads distinct; scutellum distinct; leg capsules showing two long joints and four tarsal joints, the tip being annulated. Abdomen showing eight segments, the first and last rather small; segments two to seven showing two longitudinal double rows of brownish, bristle-like hairs slightly bent at their apex; segments four to seven each have a single bristle-like hair near the outer apical corner. At the apex of the abdomen, towards the ventral surface, are two prominent, brown, chitinous prongs or hooks, widely separated, turned upwards. For details see drawing (Fig. 3).

Length, 2 mm.

One specimen found in frass in a decaying tree of *Quercus velutina*.

A NEW GENUS AND SPECIES OF TRYPETIDAE INFESTING ASPARAGUS IN SOUTH AFRICA. (DIPTERA).

BY D. W. COQUILLET.

ZACERATA, new genus.

Distinguished by the unusually long antennae, which are almost twice as long as the face, slender and linear, the first joint wider than long, the second slightly longer than the third, arista bare, basal. Head about twice as high as long, face convex, slightly projecting forward at the oral margin, eyes oblong, about five times as high as width of cheek, three pairs of orbital bristles, the lowest pair on a line with insertion of antennae. Wings rather narrow, stigmal cell unusually short, second vein very sinuous, the third less so, discal cell greatly narrowed on its basal half, small crossvein at a point near two-thirds the length of the discal cell, lower apical angle of the anal cell rectangular, first vein and base of the third bristly, last sections of third and fourth veins subparallel.

Type.—The following species:

Zacerata asparagi, new species.

Black, the second antennal joint, arista and tarsi, yellow. Face polished, the sides thinly gray pruinose, front subopaque, seven spots in two transverse rows near the middle and a row of five along each eye, gray pruinose. Body somewhat polished, mesonotum marked with many gray pruinose lines, pleura thinly gray pruinose, the mesopleura covered with black dots except on its front edge, scutellum not distinctly swollen, bearing four bristles, abdomen thickly covered with black dots; ovipositor flattened, the basal joint nearly as long as the last two abdominal segments. Wings hyaline, the base to tip of first vein and from costa to fourth vein brown, basal half of second basal cell and whole of anal, brown; a large brown, three-pronged spot on outer half of wing, extending along the costa from slightly before the small crossvein to beyond apex of the fourth vein, sending a brown branch over the hind crossvein and another over the small crossvein crossing the discal cell and almost reaching the middle of the third posterior cell; the two brown regions are narrowly connected along the fourth vein.

Length 3.5 to 5 mm.

Two males and four females.

Explanatory Note.

The foregoing paper was drawn up by Mr. Coquillett in 1909, two years before his death, and sent to Cape Town, but was laid away unpublished under the impression that Mr. Coquillett intended to publish it in the United States. After some years I found the named specimens in the U. S. National Museum collection, but could not find where the description had been published. Inasmuch as the only labels on the specimens read "Worcester, C. G. H., Jan. 08." I formed the theory that the late C. Gordon Hewitt had bred the material. Writing to his successor, Mr. Gibson, in Ottawa, it was found that no record of the matter exists there. I then sent two specimens to Mr. J. E. Collin, the well-known dipterist of Newmarket, England. He replied that the species is certainly not British, and suggested that the initials on the label might mean "Cape of Good Hope." A few months later Mr. C. P. Lounsbury, of Pretoria, visited Washington, and I asked him if he remembered the species. He did, and on his return in passing through Cape Town looked it up and sent back the above manuscript.

Mr. Lounsbury writes, "The asparagus roots from which the plants were grown were imported, but it seems to me likely that the fly itself is South African."

Of the six original specimens, the type male and allotype female (U. S. N. M. No. 26695) are in the National Museum; one male and female, paratypes, were sent to Mr. Collin; and two female paratypes are returned to Mr. Lounsbury for deposit in the proper museum in South Africa.

Mr. Collin sent his specimens to Professor Mario Bezzi, of Turin, Italy, who reported that he had not seen the species among the large collections of African Trypetidae that he has worked up. Mr. Collin has kindly turned over the following additional descriptive notes on the characters, which cover details used in recent work on the family.—*J. M. Aldrich.*

Notes by J. E. Collin.

CHAETOTAXY. *Head.*—Three pairs of widely-spaced incurved lower orbital bristles; two pairs of recurved upper orbitals, the front pair almost in line with front ocellars and slightly stronger than hind pair. Outer vertical bristle placed just behind upper corner of eye, some little distance from inner vertical, which is one-fifth of width of frons from corner of eye. Ocellar bristles about as long as front upper orbital; postvertical pair close together, short, upcurved and parallel. Bristles of occipital row black, very small and inconspicuous. No strong genal bristle.

Thorax.—Apparently only one pair of dorsocentral bristles (about in transverse line with front postalar bristle); prescutellars present, nearly as large as dorsocentrals. A humeral, a presutural, 2 notopleural, a supra-alar, 2 postalar, and 4 scutellar bristles. Disc of scutellum with a few short hairs. Scapular

bristles short, only one pair, wide apart. Prothoracic sternum with pale marginal hairs, and sclerite in front of prothoracic stigma with a row of whitish hairs in front. No true prothoracic bristle. Mesopleura with numerous short, dark bristles, longer and stronger on hind margin, especially towards upper corner. Pteropleura with a strong bristle on upper margin and 5-6 small bristles below it. One strong posterior sternopleural bristle.

Wing.—Subcostal vein bristly on upper surface from humeral crossvein to tip; cubital vein the same from radio-cubital node to about half way to crossvein, with an additional isolated bristle just above the crossvein. No bristles on under side of veins.

COLOR, ETC.—The ground color of frons and cheeks is a light mahogany, but the face, jowls, and occiput are darker. The 5-6 grey spots on frons "along each eye" are fairly conspicuous, but Coquillett's "two transverse rows of spots" are really represented by an upper row of four irregular grey spots or patches—one just in front of each front upper orbital bristle and one on each side of front ocellus—and a lower row nearer front of frons of three more or less confluent spots which may also be connected on a narrow median line with the middle ones of upper row. Further there are three small grey patches on vertical ridge.

The manner in which the thorax and abdomen are reticulated or mottled with dusted grey reminds one of similar markings in *Platystoma seminativis*.

NEW TARSONEMID MITES (ORDER ACARINA, FAMILY TARSONEMIDAE).

BY H. E. EWING, *U. S. Bureau of Entomology.*

In the following paper a new genus and three new species of Tarsenemid mites are described. The new genus, *Locustacarus*, is created for the reception of a new species taken from the tracheae of certain grasshoppers in the State of Kansas several years ago, and studied by Dr. P. S. Welch and L. P. Wehrle. The results of these studies were presented in a joint paper by these two authors at the 1923 meeting of the Entomological Society of America.

Tarsonemus phyllophorus, new species.

Female.—Very long, with subcircular capitulum. Pseudostigmatic organs capitate, head spherical and in diameter equal to the length of the thread-like pedicel; pseudostigmata circular, equal to heads of pseudostigmatic organs in diameter. Slightly above and behind each pseudostigmata is situated a long seta which exceeds in length the width of the cephalothorax.

Abdomen truncate in front and broadly rounded behind, with sides which are almost parallel. Dorsally the abdomen is divided into three subequal areas in front of the insertion of the third legs by two transverse sutures, and behind the third legs into three very unequal areas by two transverse sutures. Dorsally, abdomen nude except for a pair of minute setae situated sublaterally about midway between the second and third pairs of legs. Three pairs of minute setae around the curve of the posterior margin.

Legs rather short; first pair reaching slightly beyond the tip of capitulum; second pair slightly shorter than the first; third pair extending for a little over